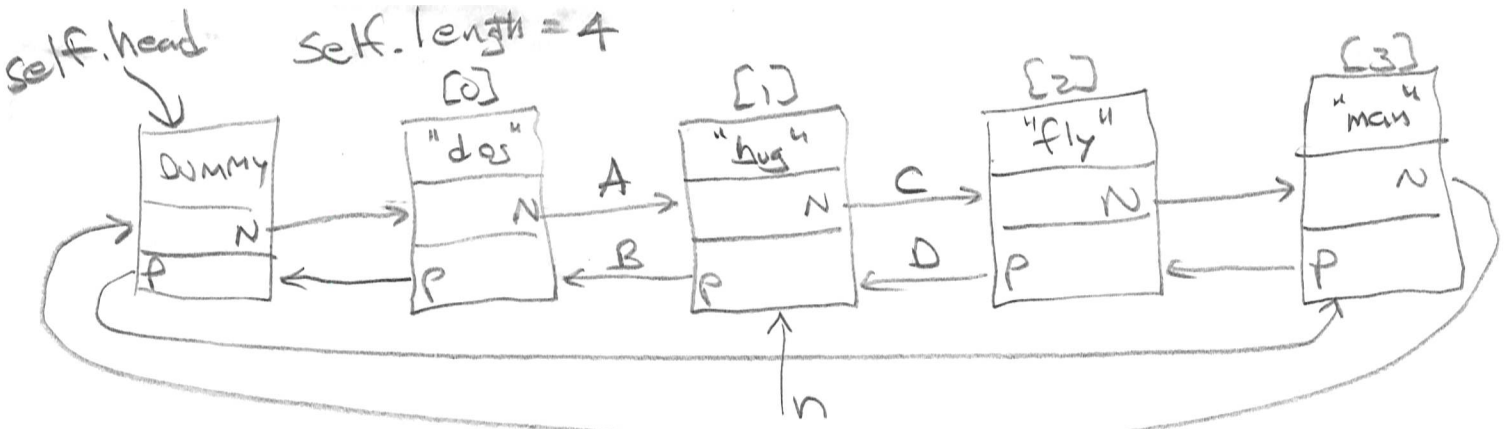
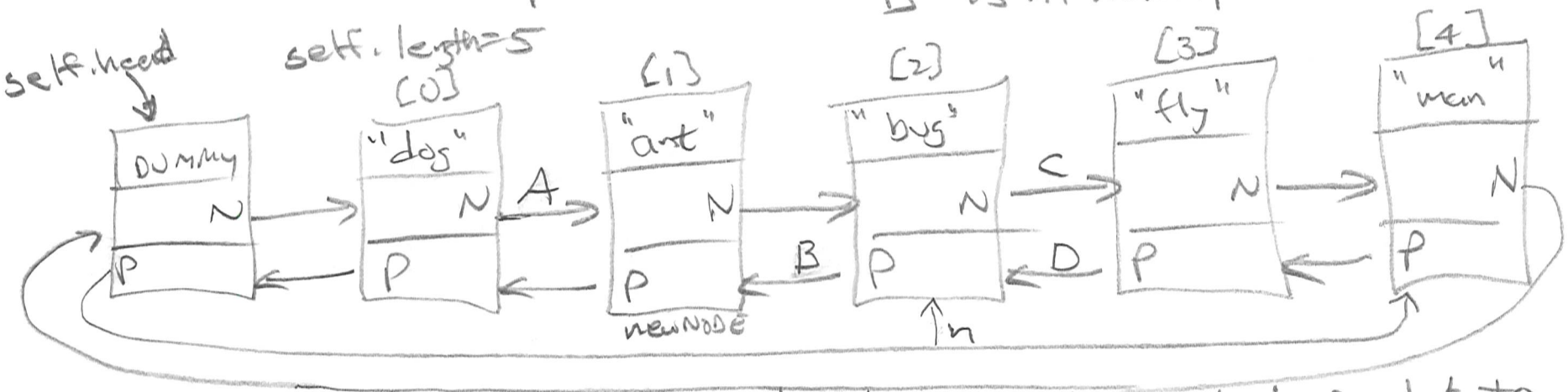


insert(1, "ant") #first walk "n" pointer to index

A is n.prior.next C is n.next

B is n.prior D is n.next.prior

self.length=5



newNode next needs to point to what A pointed to

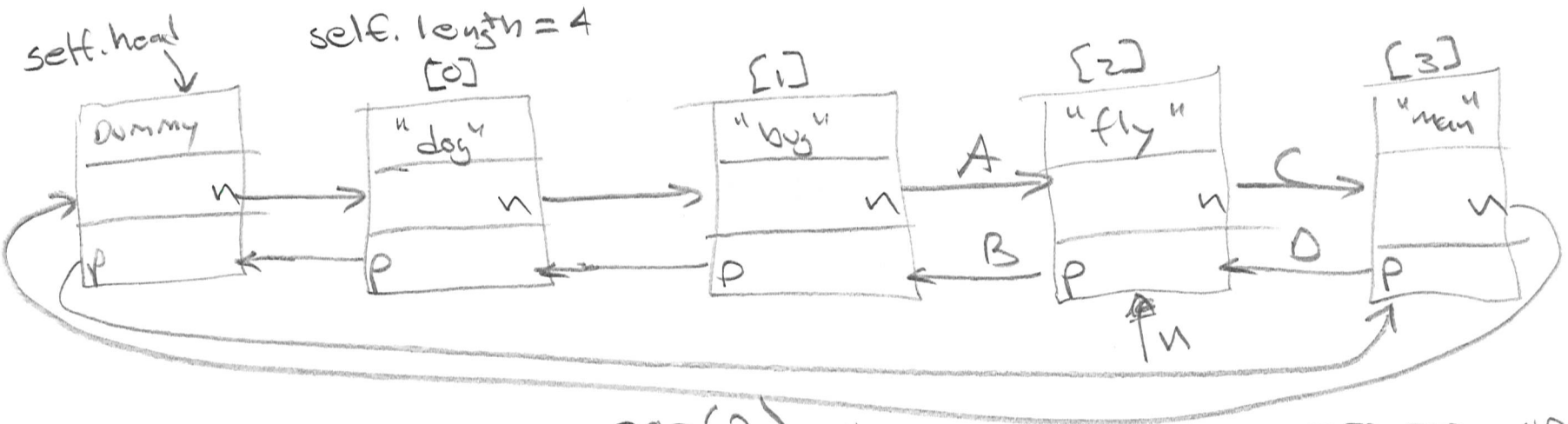
newNODE prior needs to point to what B pointed to

THEN

UPDATE A TO POINT TO NEWNODE

UPDATE B TO POINT TO NEWNODE

increment self.length



pop(a) #first walk "n" pointer to index

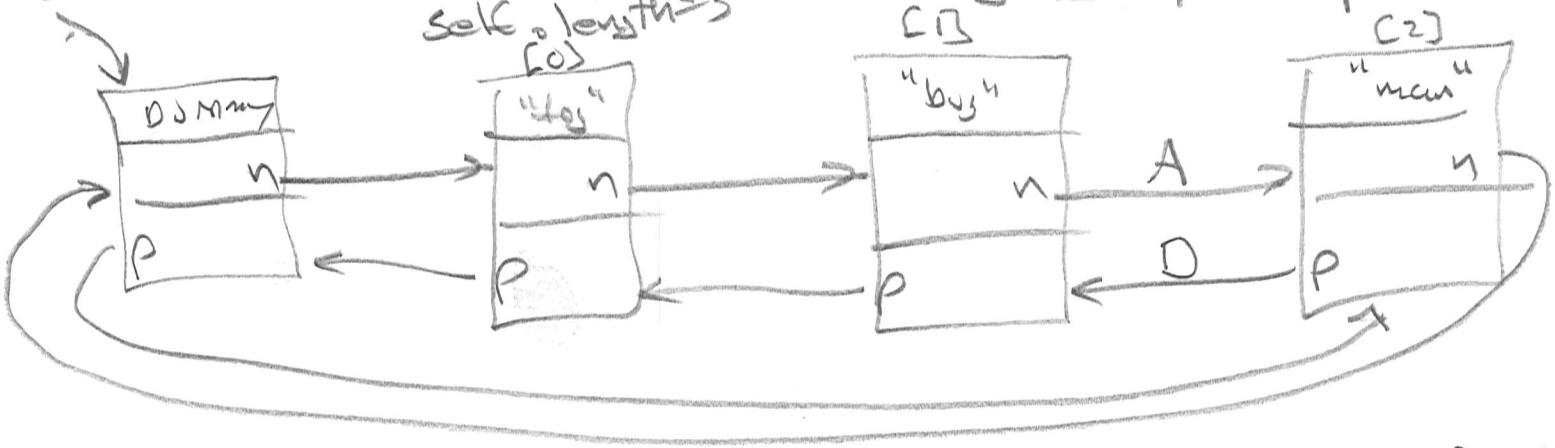
A is n.prior.next

B is n.prior

C is n.next #save n.val for return

D is n.next.prior

self.length -= 1



UPDATE A TO POINT TO WHAT C POINTS TO

UPDATE D TO POINT TO WHAT B POINTS TO

DECREMENT self.length

return SAVED n.val